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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/544,878	04/07/00	KRYSIK	M P/23-5-CIP

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PM82/0514

EXAMINER

VALENTI, A

ART UNIT	PAPER NUMBER
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3643

3

DATE MAILED:

05/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/544,878

Applicant(s)

KRYSIAK ET AL.

Examiner

Andrea M. Valenti

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

PETER M. POON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

pmp

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7 April 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Drawings

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

The drawings are objected to because:

1.) Fig. 5, the last apparatus piece in the flow process, following Element #36, is not numbered in the figure and is not defined in the specification.

Correction is required.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

The disclosure is objected to because of the following informalities:

- 1.) Page 23, third paragraph, first sentence, 'sees' should be --seeds--
- 2.) Page 23, first paragraph, second line, 'spay' should be --spray--
- 3.) Page 53, third paragraph, first line, 'may e' should be --maybe--

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Based on the vague and indefinite language of line 2 in Claim 1, it is unclear whether the term within the parentheses "(s)" is to be included in the claim or not.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,250,660 to Kitamura et al.

Regarding Claims 1, 2, and 3, Kitamura et al discloses a method of encapsulating seed by an agglomeration operation using agitating and tumbling to wrap seeds with layers of fine particles and prior to agitation and tumbling the seed is sprayed with a binding agent. The agitating and tumbling overcomes the natural tendencies of the material fines to bind to one another. (Kitamura Col. 1 lines 30-40 and Claim 1)

Regarding Claim 17, Kitamura teaches that a fluidized bed is the apparatus used in the method (Kitamura Col. 2 line 17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,250,660 to Kitamura et al in view of U.S. Patent No. 5,126,203 to Ritzer et al.

Regarding Claims 4, 6, and 9, Kitamura is silent on the pan pelletizer, a flow-jet mixer, or a rotary drum agglomerator. However, Ritzer teaches a mixer agglomeration method with binder agent using a pan pelletizer, a rotary drum agglomerator, or a flow-jet mixer (Ritzer et al Col. 2 line 4-7). It would have been obvious to one of ordinary skill in the art to modify the agglomeration method of Kitamura et al with the apparatuses of Ritzer et al, since the applicant does not present a criticality for a particular device in the specification and these are alternate equivalent apparatuses that perform the same intended function. These agglomeration apparatuses are well known in the art and one skilled in the art would select a pan pelletizer, a rotary drum, or a flow-jet mixer to satisfy different economic and time parameters and different types of fertilizer or nutrient coatings.

Claims 5, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,250,660 to Kitamura et al in view of U.S. Patent No. 2,815,376 to Knowlton et al and Frigmaires Engineers Inc. Internet Products Home Page.

Regarding Claims 5, 8, and 12, Kitamura is silent on the paddle mixer, the powder, and the ribbon mixer apparatus. However, Knowlton et al teaches that paddle mixers and ribbon mixers are well known agitation coating mixing apparatuses, but is silent on the powder mixer. Frigmaires Engineers Inc. discloses that powder mixers and ribbon mixers are equivalent mixers. Therefore, it would have been obvious to one of ordinary skill in the art to modify the coating method of Katamuri with the mixers of Knowlton et al and Frigmaires, since the applicant does not indicate the criticality of one type of mixer over the other in the specification and these mixers are alternate equivalent methods that perform the same intended function. These mixers are well known in the art and one skilled in the art would select a paddle, a powder, or a ribbon mixer to satisfy different economic and time parameters and different powder applications.

Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,250,660 to Kitamura et al in view of Mars Mineral Internet Products Home Page.

Regarding Claims 13 and 15, Kitamura is silent on a pin mixer or pin type mixer. However, Mars Mineral discloses a pin mixer that is well known in the art for agglomeration applications. It would have been obvious to one of ordinary skill to

modify Kitamura's agglomeration method with the Mars Mineral apparatus since the applicant does not present a criticality for a particular device in the specification and the pin/pin type-mixer is an alternate equivalent agglomeration apparatus that performs the same intended function. These mixers are well known in the art and one skilled in the art would select a pin/ pin-type mixer to satisfy different economic and time parameters and different powder applications.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,250,660 to Kitamura et al in view of U.S. Patent No. 6,202,346 B1 to Lyons et al.

Regarding Claim 7, Kitamura is silent on a horizontal pan. However, Lyons et al discloses a seed coating method and that the industry standard for coating are pan-type arrangements including the horizontal pan (Lyons et al Col. 1 lines 35-42). It would have been obvious to one of ordinary skill in the art to modify the seed coating method of Kitamura with the apparatus discloses by Lyons et al since the applicant does not present a criticality for a particular device in the specification and the horizontal pan is an alternate equivalent agglomeration apparatus that performs the same intended coating function. The horizontal pan is well known in the art and one skilled in the art would select the horizontal pan to satisfy different economic and time parameters and for different powder applications.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,250,660 to Kitamura et al in view of U.S. Patent No. 5,130,171 to Prud'Homme et al.

Regarding Claim 10, Kitamura is silent on a planetary mixer. However, Prud'Homme et al discloses a planetary mixer used in a seed encapsulating method (Prud'Homme et al. Col. 8 line 12-13). It would have been obvious to one of ordinary skill in the art to modify the coating method of Kitamura with the apparatus of Prud'Homme et al, since the applicant does not present a criticality for a particular device in the specification and the planetary mixer is an alternate equivalent apparatus that performs the same intended function in the coating process. The planetary mixer is well known in the art and one skilled in the art would select the mixer to satisfy different economic and time parameters and for use in two coating operations.

Claims 11, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,250,660 to Kitamura et al in view of U.S. Patent No. 5,891,246 to Virgil D. Lund.

Regarding Claims 11, 14, and 16, Kitamura is silent on a cone mixer, a vertical mixer, or a cone pelletizer. However, Lund discloses a seed coating apparatus that uses a cone mixer (Lund Col. 2 line 21, Col. 3 line 17, and Fig. 1). The applicant does not define a cone pelletizer and a vertical mixer, Lund's apparatus also discloses a vertical mixer since the coating apparatus of Fig. 1 has a vertical orientation and it discloses a cone pelletizer since it performs the step of pelletizing and has a cone

shape configuration. It would have been obvious to one of ordinary skill in the art to modify the method of Kitamura with the apparatus of Lund, since the applicant does not present a criticality for a particular device in the specification and these are alternate equivalent apparatuses that perform the same intended function. These agglomeration apparatuses are well known in the art and one skilled in the art would select a vertical mixer or a cone pelletizer/mixer to satisfy different economic and time parameters and for different types of fertilizer or nutrient coatings.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 4,465,017 to John J. Simmons teaches a seed coating apparatus that utilizes a binding agent for application of a coating of powder by tumbling in a revolving drum.

U.S. Patent No. 3,991,225 to Glenn M. Blouin teaches a method of applying coatings to solid particles using a horizontal rotary drum. Furthermore, Blouin teaches that the paddle mixer and the fluidized bed are well known agglomeration apparatuses.

U.S. Patent No. 5,443,637 to Long et al teaches a tumbling method of coating particulate material using a rotary drum.

United Kingdom Patent GB 2025200 to Kitamura et al teaches the application of coating seeds using a tumbling method to apply a binder and a powder layer.

United Kingdom Patent GB 2182864 to Clayton et al teaches material coating using a fluidized bed and agitation.

Art Unit: 3643

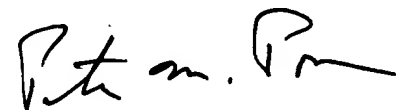
FEECO International, Inc. discloses agglomeration with a binder material using pan pelletizers, drum granulators, pin mixers, and pug mixers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-4195 for regular communications and 703-305-0285 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4357.

AMV
May 10, 2001


PETER M. POON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600